

Mr. Bill Anderson
Stant Manufacturing, Inc.
1620 Columbia Avenue
Connersville, Indiana 47331

Re: Registered Operation Status,
041-11917-00013

Dear Mr. Anderson:

The application from Stant Manufacturing, Inc., received on February 22, 2000, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-5.5, it has been determined that the following metal painting source, located at 1620 Columbia Avenue, Connersville, Indiana, is classified as registered:

- (a) One (1) natural gas fired boiler, identified as 6608013, constructed in 1966, exhausting to stack 01, maximum heat input capacity: 2.678 million British thermal units per hour.
- (b) One (1) natural gas fired boiler, identified as 6615041, constructed in 1966, exhausting to stack 02, maximum heat input capacity: 5.02125 million British thermal units per hour.
- (c) One (1) natural gas fired boiler, identified as 6615042, constructed in 1966, exhausting to stack 03, maximum heat input capacity: 5.02125 million British thermal units per hour.
- (d) One (1) natural gas fired boiler, identified as 6608030, constructed in 1966, exhausting to stack 04, maximum heat input capacity: 2.678 million British thermal units per hour.
- (e) One (1) natural gas fired boiler, identified as 6620086, constructed in 1966, exhausting to stack 05, maximum heat input capacity: 8.36 million British thermal units per hour.
- (f) One (1) natural gas fired drying oven, identified as 77M88232, exhausting to stack 06, capacity: 1.25 million British thermal units per hour.
- (g) One (1) paint line, constructed prior to 1970, equipped with high volume, low pressure (HVLP) spray guns and dry filters as overspray control, capacity: 375 metal parts per hour.

The following conditions shall be applicable:

- (1) Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary alternative opacity limitations), opacity shall meet the following:
 - (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
 - (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

- (2) Pursuant to 326 IAC 6-2-3 (Particulate Emissions Limitations for Facilities Constructed prior to September 21, 1983), the PM emissions from the five (5) boilers, all constructed in 1966, with a total heat input capacity of 23.76 million British thermal units per hour, shall not exceed 0.65 pound per million British thermal unit. This limitation is based on the following equation is given in 326 IAC 6-2-3:

$$Pt = C \times a \times h / 76.5 \times Q^{0.75} \times N^{0.25}$$

where:

Pt = Pounds of particulate matter emitted per million British thermal units (lb/MMBtu) heat input

Q = Total source maximum operating capacity rating in million British thermal units per hour (MMBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

C = Maximum ground level concentration with respect to distance from the point source at the "critical" wind speed for level terrain. This shall equal 50 micrograms per cubic meter for a period not to exceed a sixty (60) minute time period.

N = Number of stacks in fuel burning operation.

a = Plume rise factor which is used to make allowance for less than theoretical plume rise. The value 0.67 shall be used for Q less than or equal to 1,000 mmBtu/hr heat input. The value 0.8 shall be used for Q greater than 1,000 mmBtu/hr heat input.

h = Weighted average stack height in feet.

- (3) Pursuant to 326 IAC 6-3-2 (Process Operations), the particulate matter (PM) from the one (1) paint line shall be limited by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

The dry filters shall be in operation at all times the one (1) paint line is in operation, in order to comply with this limit.

The source may operate according to 326 IAC 2-5.5.

An authorized individual shall provide an annual notice to the Office of Air Quality that the source is in operation and in compliance with this registration pursuant to 326 IAC 2-5.5-4(a)(3). The annual notice shall be submitted to:

**Compliance Data Section
Office of Air Quality
100 North Senate Avenue
P.O. Box 6015
Indianapolis, IN 46206-6015**

no later than March 1 of each year, with the annual notice being submitted in the format attached.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

CAO/MES

cc: File - Fayette County
Air Compliance - Warren Greiling
Permit Tracking - Janet Mobley
Air Programs Section- Michele Boner

Registration Annual Notification

This form should be used to comply with the notification requirements under 326 IAC 2-5.5-4(a)(3)

Company Name:	Stant Manufacturing, Inc.
Address:	1620 Columbia Avenue
City:	Connersville
Authorized individual:	Bill Anderson
Phone #:	765-825-3121
Registration #:	041-11917-00013

I hereby certify that Stant Manufacturing, Inc. is still in operation and is in compliance with the requirements of Registration 041-11917-00013.

Name (typed):
Title:
Signature:
Date:

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for Registration

Source Background and Description

Source Name:	Stant Manufacturing, Inc.
Source Location:	1620 Columbia Avenue, Connersville, Indiana 47331
County:	Fayette
SIC Code:	3479
Operation Permit No.:	Registration 041-11917-00013
Permit Reviewer:	CarrieAnn Ortolani

The Office of Air Quality (OAQ) has reviewed an application from Stant Manufacturing, Inc. relating to the operation of a metal painting source.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

- (a) One (1) natural gas fired boiler, identified as 6608013, constructed in 1966, exhausting to stack 01, maximum heat input capacity: 2.678 million British thermal units per hour.
- (b) One (1) natural gas fired boiler, identified as 6615041, constructed in 1966, exhausting to stack 02, maximum heat input capacity: 5.02125 million British thermal units per hour.
- (c) One (1) natural gas fired boiler, identified as 6615042, constructed in 1966, exhausting to stack 03, maximum heat input capacity: 5.02125 million British thermal units per hour.
- (d) One (1) natural gas fired boiler, identified as 6608030, constructed in 1966, exhausting to stack 04, maximum heat input capacity: 2.678 million British thermal units per hour.
- (e) One (1) natural gas fired boiler, identified as 6620086, constructed in 1966, exhausting to stack 05, maximum heat input capacity: 8.36 million British thermal units per hour.
- (f) One (1) natural gas fired drying oven, identified as 77M88232, exhausting to stack 06, capacity: 1.25 million British thermal units per hour.
- (g) One (1) paint line, constructed prior to 1970, equipped with high volume, low pressure (HVLP) spray guns and dry filters as overspray control, capacity: 375 metal parts per hour.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

New Emission Units and Pollution Control Equipment

There are no new facilities proposed at this source during this review process.

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

Registration, issued on December 13, 1979

All conditions from previous approvals were incorporated into this permit.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (EF)
01	Boiler	23.0	2.0	60	300 - 350
02	Boiler	24.0	2.0	105	300 - 350
03	Boiler	24.0	2.0	105	300 - 350
04	Boiler	24.0	2.0	60	300 - 350
05	Boiler	24.0	2.0	160	300 - 350
06	Oven	24.0	2.0	25	300 - 400

Enforcement Issue

- (a) The applicant applied for the Minor Source Operating Permit (MSOP) after December 27, 1999. Therefore, the source is not in compliance with the compliance schedule under 326 IAC 2-6.1-3. However, the chrome electroplating facilities were removed in March 2000.
- (b) IDEM is reviewing this matter and will take appropriate action.

Recommendation

The staff recommends to the Commissioner that the operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for a chrome plating source was received on February 21, 2000. Since that time, the chrome plating operations have been removed. An application for the purposes of this review was received on December 13, 2000, with additional information received on February 5, 2001.

Emission Calculations

See pages 1 through 4 of 4 of Appendix A of this document for detailed emissions calculations.

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency.”

Pollutant	Potential To Emit (tons/year)
PM	0.696
PM ₁₀	1.32
SO ₂	0.065
VOC	2.83
CO	9.20
NO _x	11.0

HAPs	Potential To Emit (tons/year)
Xylene	0.696
Toluene	0.513
Glycol Ethers	0.163
Benzene	0.0002
Dichlorobenzene	0.0001
Formaldehyde	0.008
Hexane	0.197
Toluene	0.0004
Lead	0.00005
Cadmium	0.0001
Chromium	0.0002
Manganese	0.00004
Nickel	0.0002
TOTAL	1.58

- (a) The potential to emit (as defined in 326 IAC 2-5.1-2) of NO_x is less than twenty-five (25) tons per year and greater than ten (10) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-5.5-1.

- (b) This existing source is not a major Prevention of Significant Deterioration (PSD) stationary source because no attainment pollutant is emitted at a rate of 250 tons per year or greater and it is not in one of the 28 listed source categories. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.
- (c) **Fugitive Emissions**
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2, 40 CFR 52.21, or 326 IAC 2-3 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

Actual Emissions

No previous emission data has been received from the source.

Limited Potential to Emit

The table below summarizes the total potential to emit, reflecting all limits, of the significant emission units.

	Limited Potential to Emit (tons/year)						
Process/facility	PM	PM ₁₀	SO ₂	VOC	CO	NO _x	HAPS
Five (5) boilers and one (1) drying oven	0.208	0.833	0.065	0.602	9.20	11.0	0.207
One (1) paint line	0.488	0.488	0.00	2.23	0.00	0.00	1.37
Total Emissions	0.696	1.32	0.065	2.83	9.20	11.0	1.58

County Attainment Status

The source is located in Fayette County.

Pollutant	Status
PM ₁₀	attainment
SO ₂	attainment
NO ₂	attainment
Ozone	attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO_x) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Fayette County has been designated as attain-

ment or unclassifiable for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

- (b) Fayette County has been classified as attainment or unclassifiable for all remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than one hundred (100) tons per year,
- (b) a single hazardous air pollutant (HAP) is less than ten (10) tons per year, and
- (c) any combination of HAPS is less than twenty-five (25) tons per year.

This status is based on all the air approvals issued to the source. This status has been verified by the OAQ inspector assigned to the source.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.
- (b) This source is not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.40, 60.40a, 60.40b and 60.40c, Subparts D, Da, Db and Dc) because each boiler has a capacity less than 10 million British thermal units per hour and was constructed prior to June 9, 1989.
- (c) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14, 326 IAC 20, and 40 CFR Part 61 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is located in Fayette County and the potential to emit PM₁₀, CO, SO₂, VOC and NO_x is less than one hundred (100) tons per year. Therefore, 326 IAC 2-6 does not apply.

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary alternative opacity limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

326 IAC 2-4.1-1 (New Source Toxics Control)

The total source potential to emit of each individual HAP is less than ten (10) tons per year and a the potential to emit of any combination of HAPs is less than twenty-five (25) tons per year. Therefore, the requirements of 326 IAC 2-4.1-1 are not applicable.

326 IAC 6-2-3 (Particulate Emissions Limitations for Facilities Constructed prior to September 21, 1983)

The five (5) boilers, all constructed in 1966, with a total heat input capacity of 23.76 million British thermal units per hour, must comply with the PM emission limitation of 326 IAC 6-2-3. This limitation is based on the following equation is given in 326 IAC 6-2-3:

$$Pt = C \times a \times h / 76.5 \times Q^{0.75} \times N^{0.25}$$

where:

Pt = Pounds of particulate matter emitted per million British thermal units (lb/MMBtu) heat input

Q = Total source maximum operating capacity rating in million British thermal units per hour (MMBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

C = Maximum ground level concentration with respect to distance from the point source at the "critical" wind speed for level terrain. This shall equal 50 micrograms per cubic meter for a period not to exceed a sixty (60) minute time period.

N = Number of stacks in fuel burning operation.

a = Plume rise factor which is used to make allowance for less than theoretical plume rise. The value 0.67 shall be used for Q less than or equal to 1,000 mmBtu/hr heat input. The value 0.8 shall be used for Q greater than 1,000 mmBtu/hr heat input.

h = Weighted average stack height in feet.

For the five (5) boilers:

$$Pt = 50 \times 0.67 \times 23.89 / 76.5 \times (23.76)^{0.75} \times 5^{0.25} = 0.65 \text{ lb/MMBtu}$$

Based on Appendix A, the potential to emit PM emissions from the five (5) boilers limited to 0.65 pound PM per million British thermal units is:

$$\begin{aligned} 0.198 \text{ tons/yr} \times (2000 \text{ lbs/ton} / 8760 \text{ hrs/yr}) &= 0.045 \text{ lbs/hr} \\ (0.045 \text{ lbs/hr} / 23.76 \text{ MMBtu/hr}) &= 0.002 \text{ lbs PM per MMBtu} \end{aligned}$$

Therefore, the five (5) boilers will comply with this rule.

326 IAC 6-3-2 (Process Operations)

The particulate matter (PM) from the one (1) paint line shall be limited by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

The dry filters shall be in operation at all times the one (1) paint line is in operation, in order to comply with this limit.

326 IAC 8-2-9 (Miscellaneous Metal Coating)

The one (1) paint line was constructed prior to 1980 in Fayette County. Therefore, the requirement of 326 IAC 8-2-9, Miscellaneous Metal Coating, are not applicable.

326 IAC 8-6 (Organic Solvent Emission Limitations)

The potential VOC emissions from this source are less than one hundred (100) tons per year. Therefore, the requirements of 326 IAC 8-6, Organic Solvent Emission Limitations, are not applicable.

Conclusion

The operation of this metal painting source shall be subject to the conditions of the attached proposed Registration 041-11917-00013.

**Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler**

Page 1 of 4 TSD App A

**Company Name: Stant Manufacturing, Inc.
Address City IN Zip: 1620 Columbia Avenue, Connersville, IN 47331
Registration: 041-11917
Plt ID: 041-00013
Reviewer: CarrieAnn Ortolani
Date: February 21, 2000**

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
Five (5) Boilers rated at 2.678, 5.02125, 5.02125, 2.678, and 8.36 MMBtu/hr	
23.76	208.12

Pollutant						
Emission Factor in lb/MMCF	PM* 1.9	PM10* 7.6	SO2 0.6	NOx 100.0 **see below	VOC 5.5	CO 84.0
Potential Emission in tons/yr	0.198	0.791	0.062	10.4	0.572	8.74

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
One (1) drying oven, rated at 1.25 MMBtu/hr	
1.25	10.95

Pollutant						
Emission Factor in lb/MMCF	PM* 1.9	PM10* 7.6	SO2 0.6	NOx 100.0 **see below	VOC 5.5	CO 84.0
Potential Emission in tons/yr	0.010	0.042	0.003	0.548	0.030	0.460

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

See page 2 for HAPs emissions calculations.

Appendix A: Emissions Calculations

Page 2 of 4 TSD App A

Natural Gas Combustion Only

MM BTU/HR <100

Small Industrial Boiler

HAPs Emissions

Company Name: Stant Manufacturing, Inc.
Address City IN Zip: 1620 Columbia Avenue, Connersville, IN 47331
Registration: 041-11917
Plt ID: 041-00013
Reviewer: CarrieAnn Ortolani
Date: February 21, 2000

HAPs - Organics

Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	2.30E-04	1.31E-04	8.22E-03	1.97E-01	3.72E-04

HAPs - Metals

Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03	Total HAPs
Potential Emission in tons/yr	5.48E-05	1.20E-04	1.53E-04	4.16E-05	2.30E-04	0.207

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler
HAPs Emissions

Page 2 of 4 TSD App A

Company Name: Stant Manufacturing, Inc.
Address City IN Zip: 1620 Columbia Avenue, Connersville, IN 47331
Registration: 041-11917
Plt ID: 041-00013
Reviewer: CarrieAnn Ortolani
Date: February 21, 2000

HAPs - Organics

Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	2.30E-04	1.31E-04	8.22E-03	1.97E-01	3.72E-04

HAPs - Metals

Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03	Total HAPs
Potential Emission in tons/yr	5.48E-05	1.20E-04	1.53E-04	4.16E-05	2.30E-04	0.207

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations**

Company Name: Stant Manufacturing, Inc.
Address City IN Zip: 1620 Columbia Avenue, Connorsville, IN 47331
Registration: 041-11917
Plt ID: 041-00013
Reviewer: CarrieAnn Ortolani
Date: February 21, 2000

Material	Density (lbs/gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (units/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC (pounds per hour)	Potential VOC (pounds per day)	Potential VOC (tons per year)	Particulate Potential (tons/yr)	lbs VOC/gal solids	Transfer Efficiency
Paint Line																
Baking Enamel and Thinner	4.55	53.34%	0.0%	53.3%	0.0%	38.07%	0.00056	375.000	2.43	2.43	0.51	12.23	2.23	0.49	6.38	75%
PM									Control Efficiency	72.00%						
State Potential Emissions									Uncontrolled		0.51	12.2	2.23	0.488		
Add worst case coating to all solvents									Controlled		0.51	12.2	2.23	0.137		

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lbs/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lbs/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used

**Appendix A: Emission Calculations
HAP Emission Calculations**

Page 4 of 4 TSD AppA

**Company Name: Stant Manufacturing, Inc.
Address City IN Zip: 1620 Columbia Avenue, Connersville, IN 47331
Registration: 041-11917
Plt ID: 041-00013
Reviewer: CarrieAnn Ortolani
Date: February 21, 2000**

Material	Density (lbs/gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % Glycol Ethers	Xylene Emissions (tons/yr)	Toluene Emissions (tons/yr)	Formaldehyde Emissions (tons/yr)
Paint Line									
Baking Enamel and Thinner	4.55	0.00056	375.000	16.63%	12.26%	3.89%	0.70	0.51	0.16
Totals:							0.696	0.513	0.163

METHODOLOGY

Overall Total: 1.37

HAPS emission rate (tons/yr) = Density (lbs/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs